

REMARKS

The examiner has rejected claims 19–27 over the prior art, relying on Tiedemann and Ledbetter as the principal combination of references.

Applicant proposes that claim 19 should be amended to include the feature of claim 27. Since this amendment involves only adding the feature of claim 27 to claim 19, applicant requests that the amendment be entered under 37 CFR 1.116. Claims 20–26 and 28–30 have been canceled. Thus, the amendment for claim 19 does not affect the scope of any of the dependent claims.

The subject matter of this application, as defined in claim 19, is a vibration damper that comprises a body part (corresponding to the body part 10 in the case of the illustrated embodiment), and a guide shaft (corresponding to the shaft 13) disposed in the interior space (19) of the body part. An oscillating piece (20) that comprises a plurality of parts removably fastened to each other is disposed in the interior space of the body part, whereby the oscillating piece divides the interior space of the body part into two regions, at opposite sides respectively of the oscillating piece. The oscillating piece is movable relative to the body part, movement of the oscillating piece being guided by the guide shaft. At least one spring (29) fastens the oscillating piece to the body part. The guide shaft comprises a wall defining an interior space of the guide shaft, and the wall of the guide shaft is formed with openings (16, 17) for forming a flow connection between the interior space of the guide shaft and the two regions of the interior space of the body part. An adjuster (18) adjusts the flow connection between the interior space of the guide shaft and the interior space of the body part.

Tiedemann discloses a vibration damper, the operation of which is more or less based on the absorption of the vibration energy. The damping effect is accomplished by a piston 16, the movement of which is restricted by compressible fluid inside the damper casing. The damper comprises a hollow shaft 14 having

ports 20 on both sides of the piston, near the ends of the casing. As the piston moves near the casing end, it covers the port, and consequently the fluid pressure between the piston and the casing end rises, which in turn dampens the movement of the piston. Piston movement and thus the frequency to be damped can be adjusted by varying the distance between the ports or by changing the gas pressure. Thus, the damping effect of the damper is completely based on the damping effect created by compressible fluid inside the casing. Further, the damper of Tiedemann is capable of operating over a wide frequency range without adjustment.

Ledbetter discloses a so-called reactive force or Frahm damper, which generates vibration of equal frequency but opposite phase with respect to the frequency to be damped. For this reason this kind of a damper must be exactly tuned to the resonant frequency, otherwise it may create a second resonant frequency to the system. Therefore, the damper is provided with springs and an adjustable mass by means of which the frequency to be damped can be adjusted accurately.

The examiner suggests that the valve 50 of Tiedemann is an apt counterpart for the adjuster specified in claim 19.

Claim 19 specifies that the adjuster adjusts the flow connection between the interior space of the guide shaft and the interior space of the body part. Thus, as shown in FIG. 2, in the described embodiment of the claimed subject matter the adjustment screw or needle 18 (page 5, line 22) is adjustable to block the opening 17 to a selectively variable degree, whereby the flow of dampening medium between the interior space of the guide shaft 13 and the interior space 19 of the body part is selectively throttled. In this way, the dampening properties of the damper are adjustable.

Tiedemann discloses that the valve 50 allows the pressure within the casing 12 to be changed at will. Tiedemann does not disclose or suggest that the valve 50 influences flow between the

interior space of the tube 14 and the interior space of the casing 12.

Thus, whereas in the case of the claimed subject matter adjustment of the dampening properties is accomplished by throttling the flow of the dampening medium, in Tiedemann the pressure of the dampening medium in the casing is changed.

In view of the foregoing, applicant submits that the subject matter of claim 19 is not disclosed or suggested by Tiedemann and Ledbetter, whether taken singly or in combination. Therefore, claim 19 is patentable.

Respectfully submitted,

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Docket: AWEK 3458